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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/674,522    01/02/01    FUJII

T    P107400-0001

EXAMINER
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MM91/1010  
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NGUYEN, J	
ART UNIT	PAPER NUMBER

2815  
DATE MAILED:

10/10/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

**Office Action Summary**

Application No.

09/674,522

Applicant(s)

FUJII, TAKEHIRO

Examiner

Joseph Nguyen

Art Unit

2815

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 January 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Drawings*

Figures 3 and 4 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). ✓

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4 and 5 rejected under 35 U.S.C. 102(b) as being anticipated by JP 58-201347.

Regarding claim 1, JP 58-201347 discloses on figure 12 that a chip type emitting device comprising "a board [27] of nearly rectangular shape in a plan view; first and second electrode patterns [15,13] formed at both ends of a surface of said board; a light emitting diode (LED) chip [22] mounted on said first electrode pattern; a metal wire [23] connected to said LED chip and said second electrode pattern by wire bonding; and a translucent resin mold [24] which seals said LED chip and said metal wire; wherein one notch is formed at one end of said board at said first electrode pattern side and two notches are formed at both sides of the other end of said board at said second electrode pattern said, and the positions at both ends of said translucent resin mold are arranged to the positions at both ends in a longitudinal direction of said board [27]".

Regarding claim 2, JP 58-201347 further discloses on figure 12 "LED chip is almost centered on said board [22]".

Regarding claim 4, JP 58-201347 further discloses on figure 12 "the metal wire [23] is connected to said LED chip and the surface of the second electrode pattern which is located between said two notches formed at both sides of the other end of said board at said second electrode pattern side by wire bonding".

Regarding claim 5, JP-58-201347 further discloses on figure 12 "said one notch formed at said one end of said board at said first electrode pattern side is semi cylindrical and said two notches formed at both sides of the other end of said board at said second electrode pattern side are quarter-cylindrical".

Claims 1, 2 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 59-9564.

Regarding claim 1, JP 59-9564 discloses on figure 4 that a chip type emitting device comprising " a board [5] of nearly rectangular shape in a plan view; first and second electrode patterns [6] formed at both ends of a surface of said board; a light emitting diode (LED) chip [readable on figure 4] mounted on said first electrode pattern; a metal wire connected to said LED chip and said second electrode pattern by wire bonding; and a translucent resin mold [11] which seals said LED chip and said metal wire; wherein one notch is formed at one end of said board at said first electrode pattern side and two notches are formed at both sides of the other end of said board at said second electrode pattern said, and the positions at both ends of said translucent resin

mold are arranged to the positions at both ends in a longitudinal direction of said board [5]".

Regarding claim 2, JP 59-9564 further discloses on figure 4 "LED chip is almost centered on said board [5]".

Regarding claim 4, JP 59-9564 further discloses on figure 4 "the metal wire is connected to said LED chip and the surface of said second electrode pattern, which is located between said two notches formed at both sides of the other end of said board at said second electrode pattern side by wire bonding".

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP59-9564 or JP-58-201347 as applied to claim 1 above, and further in view of Okazaki.

Regarding claim 3, JP59-9564 or JP-58-201347 discloses substantially all the structure set forth in the claimed invention except the board size of 1.6 mm X 0.8 mm or less. However, Okazaki discloses on figure 3 that the board 17 is having a size of 1.6 mm X 0.8 mm or less. In view of such teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify JP59-9564 or JP-58-201347 by having the board size of 1.6 mm X 0.8 mm or less in a LED device for the

purpose of reducing the thickness of the LED device economically as taught by Okazaki (col. 9, lines 40-45).

Claims 1, 2, 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over figures 3 or 4 of the acknowledged prior art (APA) in view of JP 49-48267.

Regarding claims 1, 2, 4 and 5, figures 3 or 4 of APA discloses substantially all the structure set forth in the claimed invention except two quart cylindrical notches formed at both sides at the board at the second electrode. However, JP49-48267 discloses on figure 8 that an LED device having two quart cylindrical notches formed at both sides at the board at the second electrode. In view of such teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify figures 3 or 4 of (APA) by having two quart cylindrical notches formed at both sides at the board at the second electrode for the purpose of reducing the size of an LED device.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over figures 3 or 4 of the acknowledged prior art (APA) and JP 49-48267 as applied claim 1 above and further in view of Okazaki.

Regarding claim 3, figures 3 or 4 of the acknowledged prior art (APA) and JP 49-48267 discloses substantially all the structure set forth in the claimed invention except the board size of 1.6 mm X 0.8 mm or less. However, Okazaki discloses on figure 3 that the board 17 is having a size of 1.6 mm X 0.8 mm or less. In view of such teaching, it

would have been obvious to one of ordinary skill in the art at the time the invention was made to modify figures 3 or 4 of the acknowledged prior art (APA) and JP 49-48267 by having the board size of 1.6 mm X 0.8 mm or less in a LED device for the purpose of reducing the thickness of the LED device economically as taught by Okazaki (col. 9, lines 40-45).

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent 6093940 to Ishinaga et al discloses a two color LED chip component whose terminals being so arranged that side surface light emission achieved simply by vertical mounting of the LED chip component.

US Patent Re, 36,614 to Lumbard et al discloses processing techniques for various surface mount modular component providing various structures for single device component.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Nguyen whose telephone number is (703) 308-1269. The examiner can normally be reached on Monday-Friday, 7:30 am- 4:30 pm

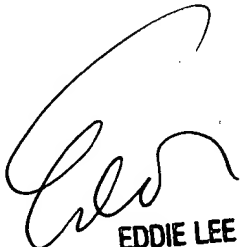
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lee can be reached on (703) 308-1690. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 308-7382 for regular communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

JN  
October 4, 2001.



EDDIE LEE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800